

Science Council of Canada

secretariat of the Science Council and the minister responsible, we will be able to accomplish in the area of science what we have been able to accomplish through groups such as the Economic Council of Canada.

To a considerable extent our experience with the Economic Council has been non-partisan. The council has performed an invaluable service to this country and has presented objective information and conducted objective research into problems in Canada. Certainly all of us hope that the new science secretariat will do the same.

I was somewhat disturbed by the minister's complacency when he pointed out that the government's efforts over the years had been increasing and that it has allocated larger and larger resources to the development of sciences in this country. I should like to quote some figures which show that in spite of the fact that the gross amount spent in the field of science has been increasing, the actual allocation to individuals working in this field has remained level, if not somewhat lower than in the past.

I should like to refer to the one area of operating grants given to people in our universities for conducting scientific research. This is the only type of grant, in most cases, that an individual conducting research can look forward to in order to continue his work. I have computed the average grant per person in physics by adding up the amount of operational grants and dividing it by the number of persons who receive grants.

By making this calculation I arrived at these figures. In 1958-59 the total amount spent was \$402,000, the number of people involved was 76 and the average grant was \$5,300. In 1959 to 1960 the total amount granted was \$476,400, the number of people involved was 100 and the average grant was \$4,800. In 1960-61 the total amount was \$580,480, the number of people involved was 106 with an average grant of \$5,500. I shall not read the complete list but I want to mention the last year. In 1963-64, which is the last year for which I have statistics, the total amount granted was \$892,700, almost double that for 1958-59. However, the number of people involved was 181, and the average grant, instead of being even \$5,300, as it was for the 1958-59 period, had gone down to \$4,950. The cost of research has gone up significantly and the amount of grants in support of research should also have gone up in proportion to that increased cost, but that

[Mr. Saltsman.]

is not the case. These figures can be contrasted with the situation in the United States. There a young newly appointed professor of physics can expect a grant of from \$15,000 to \$25,000 per year. A well established professor will have a research budget of almost \$100,000 per year.

There is a crisis in Canada in the sense that we are losing some of our most able people. This relates not only to the number we are losing but to the quality of the people being lost. I should like to quote from Dr. L. E. Howlett on "Physics in Canada" in which he says:

Above all we should ruthlessly stop certain ingenious optimists who keep publishing statistics to show that the over-all statistical balance proves the loss is not a too serious one.

He is referring to the exodus of Canadian scientists to other countries. He then states:

This is arrant nonsense. The quality of the people who move is the thing of overwhelming importance and this must be examined before numbers have any meaning at all.

● (8:30 p.m.)

I believe we all recognize that if we are going to keep these able people in Canada we are going to have to support them with adequate sums for research purposes. I certainly hope that the new Science Council of Canada will recognize this situation.

I have read the terms of reference of the council and they are very good, with one exception. The duties are defined as giving consideration to, and making reports and recommendations to the minister on, the adequacy of the scientific and technological research and development being carried on in Canada; the priorities that should be assigned in Canada to specific areas of scientific and technological research. I think these duties are fine. However, Mr. Speaker, this council will have to be given one further term of reference, and it is one that only the government can give it. The government will have to define the kind of objectives and the quality of the work it wants to see carried out in Canada so that the council, with the duties assigned to it, can make some intelligent decision with regard to those objectives.

Unless this or any other organization has clearcut ideas about what the national purpose is, I feel it must prove inadequate to the task; it will flounder around in all directions seeking a sense of guidance for the things this country requires. I urgently suggest to the minister and the government that they define a clearcut policy. Regarding the kind